

Form PTO 1449 (Modified)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY DOCKET NO. 216535US2S		SERIAL NO. 09/990,324	
<div style="border: 2px solid black; border-radius: 50%; padding: 10px; display: inline-block;"> PIPE SEP 15 2004 PATENT & TRADEMARK OFFICE </div>				APPLICANT Jun HASEGAWA			
				FILING DATE November 23, 2001		GROUP 2631 2637	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE	
llt	AA	5,644,591	07/01/1997	T. R. SUTTON			
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
	AL						
	AM						
	AN						
FOREIGN PATENT DOCUMENTS							
	DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES NO			
llt	AO	0 848 503	06/17/1998	EUROPE			
	AP	0 932 263	07/28/1999	EUROPE			
	AQ	0 820 156	01/21/1998	EUROPE			
	AR						
	AS						
	AT						
	AU						
	AV						
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)							
llt	AW	V. TUUKKANEN, et al., IEEE 6 TH International Conference on Universal Personal Communications Record, pages 698-702, XP-010248798, "COMBINED INTERPOLATION AND MAXIMUM LIKELIHOOD SYMBOL TIMING RECOVERY IN DIGITAL RECEIVERS", October 12, 1997					
	AX	<div style="border: 2px solid black; width: 100%; height: 100%; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; background: linear-gradient(to top right, transparent 49%, black 49%, black 51%, transparent 51%); background-size: 100% 100%;"></div> </div>					
	AY						
	AZ						
Examiner KHAI TRAN				<input type="checkbox"/> Additional References sheet(s) attached Date Considered 1/21/05			
<small>*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</small>							